

4164-01-P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA-2004-N-0451]

Food and Drug Administration Modernization Act of 1997: Modifications to the List of

Recognized Standards, Recognition List Number: 052

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA or Agency) is announcing a publication containing modifications the Agency is making to the list of standards FDA recognizes for use in premarket reviews (FDA Recognized Consensus Standards). This publication, entitled "Modifications to the List of Recognized Standards, Recognition List Number: 052" (Recognition List Number: 052), will assist manufacturers who elect to declare conformity with consensus standards to meet certain requirements for medical devices.

DATES: Submit either electronic or written comments on the notice at any time. These modifications to the list of recognized standards are applicable [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: You may submit comments on the current list of FDA Recognized Consensus Standards at any time as follows:

Electronic Submissions

Submit electronic comments in the following way:

 Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments. Comments submitted electronically, including attachments, to https://www.regulations.gov will be posted to the docket unchanged. Because your comment will be made public, you are solely responsible for ensuring that your comment does not include any confidential information that you or a third party may not wish to be posted, such as medical information, your or anyone else's Social Security number, or confidential business information, such as a manufacturing process. Please note that if you include your name, contact information, or other information that identifies you in the body of your comments, that information will be posted on https://www.regulations.gov.

• If you want to submit a comment with confidential information that you do not wish to be made available to the public, submit the comment as a written/paper submission and in the manner detailed (see "Written/Paper Submissions" and "Instructions").

Written/Paper Submissions

Submit written/paper submissions as follows:

- Mail/Hand delivery/Courier (for written/paper submissions): Dockets Management Staff (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.
- For written/paper comments submitted to the Dockets Management Staff, FDA will
 post your comment, as well as any attachments, except for information submitted,
 marked and identified, as confidential, if submitted as detailed in "Instructions."

Instructions: All submissions received must include the Docket No. FDA-2004-N-0451 for "Food and Drug Administration Modernization Act of 1997: Modifications to the List of Recognized Standards, Recognition List Number: 052." Received comments will be placed in the docket and, except for those submitted as "Confidential Submissions," publicly viewable at

https://www.regulations.gov or at the Dockets Management Staff between 9 a.m. and 4 p.m., Monday through Friday. FDA will consider any comments received in determining whether to amend the current listing of modifications to the list of recognized standards, Recognition List Number: 052.

Confidential Submissions--To submit a comment with confidential information that you do not wish to be made publicly available, submit your comments only as a written/paper submission. You should submit two copies total. One copy will include the information you claim to be confidential with a heading or cover note that states "THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION". The Agency will review this copy, including the claimed confidential information, in its consideration of comments. The second copy, which will have the claimed confidential information redacted/blacked out, will be available for public viewing and posted on https://www.regulations.gov. Submit both copies to the Dockets Management Staff. If you do not wish your name and contact information to be made publicly available, you can provide this information on the cover sheet and not in the body of your comments and you must identify this information as "confidential." Any information marked as "confidential" will not be disclosed except in accordance with 21 CFR 10.20 and other applicable disclosure law. For more information about FDA's posting of comments to public dockets, see 80 FR 56469, September 18, 2015, or access the information at: https://www.gpo.gov/fdsys/pkg/FR-2015-09-18/pdf/2015-23389.pdf.

Docket: For access to the docket to read background documents or the electronic and written/paper comments received, go to https://www.regulations.gov and insert the docket number,

found in brackets in the heading of this document, into the "Search" box and follow the prompts and/or go to the Dockets Management Staff, 5630 Fishers Lane, Rm. 1061, Rockville, MD 20852.

An electronic copy of Recognition List Number: 052 is available on the internet at https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Standards/ucm123792.htm.

See section IV for electronic access to the searchable database for the current list of FDA recognized consensus standards, including Recognition List Number: 052 modifications and other standards related information. Submit written requests for a single hard copy of the document entitled "Modifications to the List of Recognized Standards, Recognition List Number: 052" to Scott Colburn, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 5514, Silver Spring, MD 20993, 301-796-6287. Send one self-addressed adhesive label to assist that office in processing your request, or fax your request to 301-847-8144.

FOR FURTHER INFORMATION CONTACT: Scott Colburn, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 66, Rm. 5514, Silver Spring, MD 20993, 301-796-6287, CDRHStandardsStaff@fda.hhs.gov. SUPPLEMENTARY INFORMATION:

I. Background

Section 204 of the Food and Drug Administration Modernization Act of 1997 (Pub. L. 105-115) amended section 514 of the Federal Food, Drug, and Cosmetic Act (FD&C Act) (21 U.S.C. 360d). Amended section 514 allows FDA to recognize consensus standards developed by international and national organizations for use in satisfying portions of device premarket review submissions or other requirements.

In the *Federal Register* of September 14, 2018 (83 FR 46738), FDA announced the availability of a guidance entitled "Appropriate Use of Voluntary Consensus Standards in Premarket Submissions for Medical Devices." The guidance describes how FDA has implemented its standards recognition program and is available at https://www.fda.gov/regulatory-information/search-fda-guidance-documents/appropriate-use-voluntary-consensus-standards-premarket-submissions-medical-devices. Modifications to the initial list of recognized standards, as published in the *Federal Register*, can be accessed at https://www.fda.gov/medical-devices/standards-and-conformity-assessment-program/federal-register-documents.

These notices describe the addition, withdrawal, and revision of certain standards recognized by FDA. The Agency maintains hypertext markup language (HTML) and portable document format (PDF) versions of the list of FDA Recognized Consensus Standards. Additional information on the Agency's Standards and Conformity Assessment Program is available at https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/standards-and-conformity-assessment-program.

II. Modifications to the List of Recognized Standards, Recognition List Number: 052

FDA is announcing the addition, withdrawal, correction, and revision of certain consensus standards the Agency is recognizing for use in premarket submissions and other requirements for devices. FDA is incorporating these modifications to the list of FDA Recognized Consensus Standards in the Agency's searchable database. FDA is using the term "Recognition List Number: 052" to identify the current modifications.

In Table 1, FDA describes the following modifications: (1) the withdrawal of standards and their replacement by others, if applicable; (2) the correction of errors made by FDA in listing

previously recognized standards; and (3) the changes to the supplementary information sheets of recognized standards that describe revisions to the applicability of the standards.

In section III, FDA lists modifications the Agency is making that involve new entries and consensus standards added as modifications to the list of recognized standards under Recognition List Number: 052.

011	T	Table 1Modifications to the List of Recognized Standards	T ~
Old Recognition No.	Replacement Recognition No.	Title of Standard ¹	Change
		A. Anesthesiology	•
1-116		ISO 5360 Fourth edition 2016-02-15 Anaesthetic vaporizers	Extent of Recognition.
		— Agent specific filling systems.	
1-122		ISO 5364 Fifth edition 2016-09-01 Anaesthetic and	Extent of Recognition.
		respiratory equipment-Oropharyngeal airways.	_
1-125		ISO 8836 Fourth edition 2014-10-15 Suction catheters for	Extent of Recognition.
		use in the respiratory tract.	
1-126		ISO 11712 First edition 2009-05-15 Anaesthetic and	Extent of Recognition.
		respiratory equipment — Supralaryngeal airways and	
		connectors.	
1-131	1-142	ISO 10079-1 Third Edition 2015-11-01 Medical suction	Withdrawn and replaced
		equipment — Part 1: Electrically powered suction	with newer version
		equipment [Including AMENDMENT 1 (2018)].	including amendment.
		B. Biocompatibility	
2-162	2-263	ASTM F1903 – 18 Standard Practice for Testing for	Withdrawn and replaced
		Cellular Responses to Particles in vitro.	with newer version.
2-206	2-264	ASTM F2148 – 18 Standard Practice for Evaluation of	Withdrawn and replaced
		Delayed Contact Hypersensitivity Using the Murine Local	with newer version.
		Lymph Node Assay (LLNA).	
2-223	2-265	ASTM F2901 – 19 Standard Guide for Selecting Tests to	Withdrawn and replaced
		Evaluate Potential Neurotoxicity of Medical Devices.	with newer version.
2-257	2-266	ASTM F2382 – 18 Standard Test Method for Assessment	Withdrawn and replaced
		of Circulating Blood-Contacting Medical Device Materials	with newer version.
		on Partial Thromboplastin Time (PTT).	
		C. Cardiovascular	
3-122	3-160	ISO 81060-2 Third edition 2018-11 Non-invasive	Withdrawn and replaced
		sphygmomanometers — Part 2: Clinical investigation of	with newer version.
		intermittent automated measurement type.	
3-123		IEC 80601-2-30 Edition 2.0 2018-03 Medical electrical	Extent of Recognition.
		equipment – Part 2-30: Particular requirements for the basic	
		safety and essential performance of automated non-invasive	
		sphygmomanometers.	
3-137		ASTM F3036-13 Standard Guide for Testing Absorbable	Extent of Recognition.
		Stents.	
		D. Dental/Ear, Nose, and Throat (ENT)	
4-182	4-258	ISO 10139-2 Third edition 2016-06-15 Dentistry — Soft	Withdrawn and replaced
		lining materials for removable dentures — Part 2: Materials	with newer version.
		for long-term use.	

		Table 1Modifications to the List of Recognized Standards	
Old	Replacement	Title of Standard ¹	Change
Recognition	Recognition		
No.	No.	100 cota mili 1 1111 2000 00 01 D	W. 1 1 G #4 222
4-196		ISO 6872 Third edition 2008-09-01 Dentistry — Ceramic	Withdrawn. See #4-223.
		materials.	
5 100	5 100	E. General I (Quality Systems/Risk Management) (QS/RM)	XX7.1 1 1 1 1
5-109	5-123	ISO 80369-3 First edition 2016-07-01 Small-bore	Withdrawn and replaced
		connectors for liquids and gases in healthcare applications	with newer version
		—Part 3: Connectors for enteral applications [Including	including amendment.
5 115		AMENDMENT 1 (2019)]. ISO 80369-7 First edition 2016-10-15 Small-bore	The second second second
5-115			Transition removed.
		connectors for liquids and gases in healthcare applications	
		— Part 7: Connectors for intravascular or hypodermic	
	F. Car	applications.	EMC
	F. Gei	neral II (Electrical Safety/Electromagnetic Compatibility) (ES/E	EMC)
		No new entries at this time.	
6-11	1	G. General Hospital/General Plastic Surgery (GH/GPS)	Transition removed.
0-11		ISO 594-1 First edition 1986-06-15 Conical fittings with a	
		6% (Luer) taper for syringes, needles and certain other	Recognition restored.
6-129		medical equipment — Part 1: General requirements. ISO 594-2 Second edition 1998-09-01 Conical fittings with	Transition removed.
0-129		a 6% (Luer) taper for syringes, needles and certain other	Recognition restored.
		medical equipment — Part 2: Lock fittings.	Recognition restored.
6-403	6-421	ISO 80601-2-56 Second edition 2017-03 Medical electrical	Withdrawn and replaced
0-403	0-421	equipment — Part 2-56: Particular requirements for basic	with newer version
		safety and essential performance of clinical thermometers	including amendment.
		for body temperature measurement [Including	merading amendment.
		AMENDMENT 1 (2018)].	
	1	H. In Vitro Diagnostics (IVD)	
7-215	7-287	CLSI M44-S3 (2018) Zone Diameter Interpretive	Withdrawn and replaced
		Standards, Corresponding Minimal Inhibitory	with newer version.
		Concentration (MIC) Interpretive Breakpoints, and Quality	
		Control Limits for Antifungal Disk Diffusion Susceptibility	
		Testing of Yeasts; Third Informational Supplement.	
7-222	7-288	CLSI M24 3rd Edition Susceptibility Testing of	Withdrawn and replaced
		Mycobacteria, <i>Nocardia</i> spp., and Other Aerobic	with newer version.
		Actinomycetes.	
7-274	7-289	CLSI MM17 2nd Edition Validation and Verification of	Withdrawn and replaced
		Multiplex Nucleic Acid Assays.	with newer version.
		I. Materials	
8-132	8-491	ASTM F1088 – 18 Standard Specification for Beta-	Withdrawn and replaced
		Tricalcium Phosphate for Surgical Implantation.	with newer version.
8-150	8-492	ISO 5832-9 Third edition 2019-02 Implants for surgery —	Withdrawn and replaced
		Metallic materials — Part 9: Wrought high nitrogen	with newer version.
		stainless steel.	
8-188	8-493	ISO 13779-2 Third edition 2018-12 Implants for surgery —	Withdrawn and replaced
		Hydroxyapatite — Part 2: Thermally sprayed coatings of	with newer version.
	1	hydroxyapatite.	
8-194	8-494	ISO 6474-1 Second edition 2019-03 Implants for surgery	Withdrawn and replaced
		— Ceramic materials — Part 1: Ceramic materials based on	with newer version.
	1	high purity alumina.	
8-213	8-495	ISO 5834-3 Second edition 2019-02 Implants for surgery	Withdrawn and replaced
		— Ultra-high-molecular-weight polyethylene — Part 3:	with newer version.
	1	Accelerated ageing methods.	

Old	Replacement	Title of Standard ¹	Change
	Recognition	Title of Standard	Change
Recognition No.	No.		
8-214	8-496	ISO 5834-4 Second edition 2019-02 Implants for surgery	Withdrawn and replaced
0-214	0-470	— Ultra-high-molecular-weight polyethylene — Part 4:	with newer version.
		Oxidation index measurement method.	with newer version.
0.215	9.407		Widedness and seed and
8-215	8-497	ISO 5834-5 Second edition 2019-02 Implants for surgery	Withdrawn and replaced
		— Ultra-high-molecular-weight polyethylene — Part 5:	with newer version.
		Morphology assessment method.	
8-229	8-498	ASTM F75 – 18 Standard Specification for Cobalt-28	Withdrawn and replaced
		Chromium-6 Molybdenum Alloy Castings and Casting	with newer version.
		Alloy for Surgical Implants (UNS R30075).	
8-331	8-499	ASTM F1580 – 18 Standard Specification for Titanium and	Withdrawn and replaced
		Titanium-6 Aluminum-4 Vanadium Alloy Powders for	with newer version.
		Coatings of Surgical Implants.	
8-351	8-500	ISO 5832-12 Third edition 2019-02 Implants for surgery —	Withdrawn and replaced
0 001		Metallic materials — Part 12: Wrought cobalt-chromium-	with newer version.
		molybdenum alloy.	with he wer version.
8-352	8-501	ISO 5834-1 Fourth edition 2019-02 Implants for surgery —	Withdrawn and replaced
6-332	0-301	Ultra-high-molecular-weight polyethylene — Part 1:	with newer version.
			with newer version.
0.250	0.502	Powder form.	XXX:1 1 1 1 1
8-359	8-502	ASTM F2038 – 18 Standard Guide for Silicone Elastomers,	Withdrawn and replaced
		Gels, and Foams Used in Medical Applications Part I—	with newer version.
		Formulations and Uncured Materials.	
8-360	8-503	ASTM F2042 – 18 Standard Guide for Silicone Elastomers,	Withdrawn and replaced
		Gels, and Foams Used in Medical Applications Part II—	with newer version.
		Crosslinking and Fabrication.	
8-370	8-504	ASTM F561 – 19 Standard Practice for Retrieval and	Withdrawn and replaced
		Analysis of Medical Devices, and Associated Tissues and	with newer version.
		Fluids.	
8-388	8-505	ISO 6474-2 Second edition 2019-03 Implants for surgery	Withdrawn and replaced
		— Ceramic materials — Part 2: Composite materials based	with newer version.
		on a high-purity alumina matrix with zirconia	
		reinforcement.	
8-397	8-506	ASTM F2516 – 18 Standard Test Method for Tension	Withdrawn and replaced
0-371	0-300	Testing of Nickel-Titanium Superelastic Materials.	with newer version.
9.402	0.507		
8-402	8-507	ASTM F688 – 19 Standard Specification for Wrought	Withdrawn and replaced with newer version.
		Cobalt-35Nickel-20Chromium-10Molybdenum Alloy Plate,	with newer version.
0.444	0.500	Sheet, and Foil for Surgical Implants (UNS R30035).	****
8-411	8-508	ASTM F2579 – 18 Standard Specification for Amorphous	Withdrawn and replaced
		Poly(lactide) and Poly(lactide-co-glycolide) Resins for	with newer version.
		Surgical Implants.	
		J. Nanotechnology	
		No new entries at this time.	
		K. Neurology	
		No new entries at this time.	
	L. Oh	stetrics-Gynecology/Gastroenterology/Urology (OB-Gyn/G/Uro	ology)
	2. 30	No new entries at this time.	
	1		l
10.00	1	M. Ophthalmic	Entrat of many continue
10-89		ANSI Z80.7-2013 (R2018) American National Standard for	Extent of recognition.
		Ophthalmic Optics – Intraocular Lenses.	1
		N. Orthopedic	

	_	Table 1Modifications to the List of Recognized Standards		
Old	Replacement	Title of Standard ¹	Change	
Recognition No.	Recognition			
11-250	No. 11-349	ISO 14242-3 First edition 2009-03-15 Implants for surgery	Withdrawn and replaced	
11-230	11-349	— Wear of total hip-joint prostheses —Part 3: Loading and	with newer version.	
		displacement parameters for orbital bearing type wear	with newer version.	
		testing machines and corresponding environmental		
		conditions for test [Including AMENDMENT 1 (2019)].		
11-251	11-350	ASTM F2554-18 Standard Practice for Measurement of	Withdrawn and replaced	
11 231	11 330	Positional Accuracy of Computer Assisted Surgical	with newer version.	
		Systems.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
11-273	11-351	ISO 18192-1 Second edition 2011-03-01 Implants for	Withdrawn and replaced	
		surgery — Wear of total intervertebral spinal disc	with newer version.	
		prostheses — Part 1: Loading and displacement parameters		
		for wear testing and corresponding environmental		
		conditions for test [Including AMENDMENT 1 (2018)].		
11-291	11-352	ISO 14242-1 Third edition 2014-10-15 Implants for surgery	Withdrawn and replaced	
		— Wear of total hip-joint prostheses —Part 1: Loading and	with newer version	
		displacement parameters for wear-testing machines and	including amendment.	
		corresponding environmental conditions for test [Including		
		AMENDMENT 1 (2018)].		
		O. Physical Medicine		
		No new entries at this time.		
		P. Radiology		
12-225	12-325	NEMA XR 25-2019 Computed Tomography Dose Check.	Withdrawn and replaced	
			with newer version.	
12-265	12-326	NEMA NU 2-2018 Performance Measurements of Positron	Withdrawn and replaced	
		Emission Tomographs (PETS).	with newer version.	
	1	Q. Software/Informatics		
		No new entries at this time.		
11.255	1 4 4 7 2 7	R. Sterility		
14-377	14-527	ASTM F2638 – 18 Standard Test Method for Using	Withdrawn and replaced	
		Aerosol Filtration for Measuring the Performance of Porous	with newer version.	
11.120	11.750	Packaging Materials as a Surrogate Microbial Barrier.		
14-428	14-528	ISO 11137-1 First edition 2006-04-15 Sterilization of health	Withdrawn and replaced	
		care products — Radiation — Part 1: Requirements for	with newer version	
		development, validation and routine control of a	including amendment.	
		sterilization process for medical devices [Including		
14 452	14.500	AMENDMENT 1 (2013) and AMENDMENT 2 (2018)].	XX7'.1 1 1 1 1 1	
14-452	14-529	ISO 11135 Second edition 2014-07-15 Sterilization of	Withdrawn and replaced	
		health-care products — Ethylene oxide — Requirements for	with newer version	
		the development, validation and routine control of a	including amendment.	
		sterilization process for medical devices [Including:		
14 454	14.520	AMENDMENT 1 (2018)].	W/:4- J	
14-454	14-530	ISO 11607-1 Second edition 2019-02 Packaging for	Withdrawn and replaced	
		terminally sterilized medical devices — Part 1:	with newer version.	
		Requirements for materials, sterile barrier systems and		
14 455	14-531	packaging systems. ISO 11607 2 Second edition 2010 02 Packaging for	Withdrawn and ranload	
14-455	14-331	ISO 11607-2 Second edition 2019-02 Packaging for	Withdrawn and replaced	
		terminally sterilized medical devices — Part 2: Validation	with newer version.	
requirements for forming, sealing and assembly processes.				
15-27	15-57	S. Tissue Engineering F2315 – 18 Standard Guide for Immobilization or	Withdrawn and ranlaged	
13-27	13-37		Withdrawn and replaced with newer version.	
	l	Encapsulation of Living Cells or Tissue in Alginate Gels.	with he well version.	

Old	Replacement	Title of Standard ¹	Change
Recognition	Recognition		
No.	No.		
15-28	15-58	F2103 – 18 Standard Guide for Characterization and	Withdrawn and replaced
		Testing of Chitosan Salts as Starting Materials Intended for	with newer version.
		Use in Biomedical and Tissue-Engineered Medical Product	
		Applications.	

All standard titles in this table conform to the style requirements of the respective organizations.

III. Listing of New Entries

In Table 2, FDA provides the listing of new entries and consensus standards added as modifications to the list of recognized standards under Recognition List Number: 052. These entries are of standards not previously recognized by FDA.

Table 2.--New Entries to the List of Recognized Standards

Recognition	Title of Standard ¹	Reference No. and Date
No.		
	A. Anesthesiology	•
1-143	Medical electrical equipment — Part 2-79: Particular	ISO 80601-2-79 First edition
	requirements for basic safety and essential performance of	2018-07.
	ventilatory support equipment for ventilatory impairment.	
1-144	Medical electrical equipment — Part 2-80: Particular	ISO 80601-2-80 First edition
	requirements for basic safety and essential performance of	2018-07.
	ventilatory support equipment for ventilatory insufficiency.	
	B. Biocompatibility	
2-267	Standard Practice for Platelet Leukocyte Count—An In-Vitro	ASTM F2888 – 19.
	Measure for Hemocompatibility Assessment of Cardiovascular	
	Materials.	
2-268	Biological evaluation of medical devices — Application of the	ISO/TS 21726 First edition
	threshold of toxicological concern (TTC) for assessing	2019-02.
	biocompatibility of medical device constituents.	
	C. Cardiovascular	
	No new entries at this time.	
	D. Dental/Ear, Nose, and Throat (ENT)	
4-259	Dentistry — Implants — Dynamic loading test for endosseous	ISO 14801 Third edition
	dental implants.	2016-11-01.
	E. General I (Quality Systems/Risk Management) (QS/	RM)
	No new entries at this time.	
	F. General II (Electrical Safety/Electromagnetic Compatibility)	(ES/EMC)
19-35	Standard for Standby Batteries.	UL 1989 Edition 5, 2013-10-
		02, ANSI November 2018.
	G. General Hospital/General Plastic Surgery (GH/GP	PS)

Table 2.--New Entries to the List of Recognized Standards

Recognition	Title of Standard ¹	Reference No. and Date
No.		
6-422	Medical device safety assurance case guidance.	AAMI TIR38:2019.
6-423	CONSOLIDATED VERSION Medical electrical equipment –	IEC 60601-2-6 Edition 2.1
	Part 2-6: Particular requirements for the basic safety and	2016-04.
	essential performance of microwave therapy equipment.	
	H. In Vitro Diagnostics (IVD)	-
7-290	Establishing and Verifying an Extended Measuring Interval	CLSI EP34 1 st Edition.
	Through Specimen Dilution and Spiking.	
7-291	How to Construct and Interpret an Error Grid for Quantitative	CLSI EP27-A Vol. 32 No. 12,
	Diagnostic Assays; Approved Guideline.	Replaces EP27-P Vol. 29 No.
		16.
7-292	Performance Standards for Susceptibility Testing of	CLSI M62 1st Edition.
	Mycobacteria, <i>Nocardia</i> spp., and other Aerobic Actinomycetes.	
	I. Materials	
8-509	Standard Specification for Polysulfone Resin for Medical	ASTM F702 – 18.
	Applications.	
8-510	Standard Specification for Polycarbonate Resin for Medical	ASTM F997 – 18.
	Applications.	
8-511	Standard Specification for Semi-Crystalline Poly(lactide)	ASTM F1925 – 17.
	Polymer and Copolymer Resins for Surgical Implants.	
8-512	Standard Specification for Polyetheretherketone (PEEK)	ASTM F2026 – 17.
	Polymers for Surgical Implant Applications.	
8-513	Implants for surgery — Metallic materials — Classification of	ISO 20160 First edition 2006-
	microstructures for alpha+beta titanium alloy bars.	05-01.
8-514	Implants for surgery — Ultra-high-molecular-weight	ISO 5834-2 Fifth edition 2019-
	polyethylene — Part 2: Moulded forms.	02.
8-515	Implants for surgery — Hydroxyapatite — Part 3: Chemical	ISO 13779-3 Second edition
	analysis and characterization of crystallinity ratio and phase	2018-12.
	purity.	
8-516	Implants for surgery — Hydroxyapatite — Part 4: Determination	ISO 13779-4 Second edition
	of coating adhesion strength.	2018-12.
8-517	Non-active surgical implants — Implant coating — Part 1:	ISO 17327-1 First edition
	General requirements.	2018-02.
8-518	Standard Test Method for Ion Release Evaluation of Medical	ASTM F3306 – 19.
	Implants.	
	J. Nanotechnology	
18-13	Nanotechnologies — Electron spin resonance (ESR) as a method	
	for measuring reactive oxygen species (ROS) generated by metal	2017-06.
	oxide nanomaterials.	
18-14	Nanotechnologies — Methodology for the classification and	ISO /TR 11360 First edition
	categorization of nanomaterials.	2010-07-15.
	K. Neurology	
	No new entries at this time.	
	L. Obstetrics-Gynecology/Gastroenterology/Urology (OB-Gyn/	(G/Urology)
	No new entries at this time.	
	M. Ophthalmic	
10-116	American National Standard for Ophthalmics – Extended Depth	ANSI Z80.35-2018.
	of Focus Intraocular Lenses.	
10-117	American National Standard for Ophthalmics – Slit-Lamp	ANSI Z80.37-2017.
	Microscopes.	
10-118	American National Standard for Ophthalmics – Light Hazard	ANSI Z80.38-2017.
	from Operation Microscopes Used in Ocular Surgery.	
	N. Orthopedic	•
	1	

Table 2.--New Entries to the List of Recognized Standards

Daggarition	Title of Standard ¹	Reference No. and Date
Recognition No.	True of Standard	Reference No. and Date
11-353	Implants for surgery — Wear of total intervertebral spinal disc	ISO 18192-3 First edition
	prostheses —Part 3: Impingement-wear testing and	2017-06.
	corresponding environmental conditions for test of lumbar	
	prostheses under adverse kinematic conditions.	
11-354	Standard Guide for Impingement Testing of Total Disc	ASTM F3295 – 18.
	Prostheses.	
11-355	Implants for surgery — Metal intramedullary nailing systems —	ISO 15142-1 First edition
	Part 1: Intramedullary nails.	2003-08-01.
11-356	Implants for surgery — Metal intramedullary nailing systems —	ISO 15142-2 First edition
	Part 2: Locking components.	2003-08-01.
11-357	Implants for surgery — Metal intramedullary nailing systems —	ISO 15142-3 First edition
	Part 3: Connection devices and reamer diameter instruments.	2003-08-01.
11-358	Implants for surgery — Wear of total hip-joint prostheses — Part	ISO 14242-4 First edition
	4: Testing hip prostheses under variations in component	2018-05.
	positioning which results in direct edge loading.	
11-359	Implants for surgery — Partial and total hip-joint prostheses —	ISO 7206-10 Second edition
	Part 10: Determination of resistance to static load of modular	2018-08.
	femoral heads.	
	O. Physical Medicine	
16-206	Wheelchairs —Part 30: Wheelchairs for changing occupant	ISO 7176-30 First edition
	posture — Test methods and requirements.	2018-12.
	P. Radiology	
	No new entries at this time.	
	Q. Software/Informatics	
13-108	Health informatics—Point-of-care medical device	IEEE Std 11073-20701-2018.
	communication - Part 20701: Service-Oriented Medical Device	
	Exchange Architecture and Protocol Binding.	
13-109	(American National Standard) Standard for Safety for Medical	ANSI/AAMI/UL 2800-1:
	Device Interoperability.	2019.
	R. Sterility	-
14-532	Standard Test Method for Nondestructive Detection of Leaks in	ASTM F3287 – 17e1.
	Packages by Mass Extraction Method.	
14-533	Guidance on aspects of a risk-based approach to assuring sterility	ISO/TS 19930 First edition
	of terminally sterilized, single-use health care product that is	2017-12.
	unable to withstand processing to achieve maximally a sterility	
	assurance level of 10 ⁻⁶ .	
	S. Tissue Engineering	
	No new entries at this time.	
		•

¹ All standard titles in this table conform to the style requirements of the respective organizations.

IV. List of Recognized Standards

FDA maintains the current list of FDA Recognized Consensus Standards in a searchable database that may be accessed at

https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfStandards/search.cfm. Such standards are those that FDA has recognized by notice published in the *Federal Register* or that FDA has

decided to recognize but for which recognition is pending (because a periodic notice has not yet appeared in the *Federal Register*). FDA will announce additional modifications and revisions to the list of recognized consensus standards, as needed, in the *Federal Register* once a year, or more often if necessary.

V. Recommendation of Standards for Recognition by FDA

Any person may recommend consensus standards as candidates for recognition under section 514 of the FD&C Act by submitting such recommendations, with reasons for the recommendation, to CDRHStandardsStaff@fda.hhs.gov. To be considered, such recommendations should contain, at a minimum, the following information available at

https://www.fda.gov/medical-devices/standards-and-conformity-assessment-program/recognition-standard.

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Principal Associate Commissioner for Policy.

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